STATE OF MARYLAND

DHMH

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June 10, 2010

Public Health & Emergency Preparedness Bulletin: # 2010:22
Reporting for the week ending 06/05/10 (MMWR Week #22)

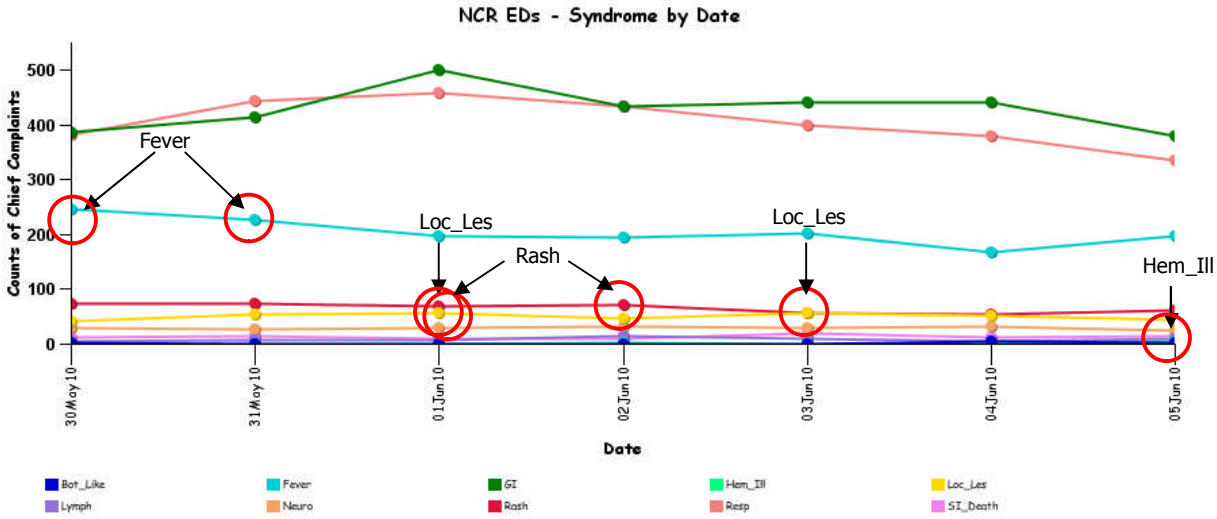
CURRENT HOMELAND SECURITY THREAT LEVELS

National: **Yellow (ELEVATED) *The threat level in the airline sector is Orange (HIGH)**
Maryland: **Yellow (ELEVATED)**

SYNDROMIC SURVEILLANCE REPORTS

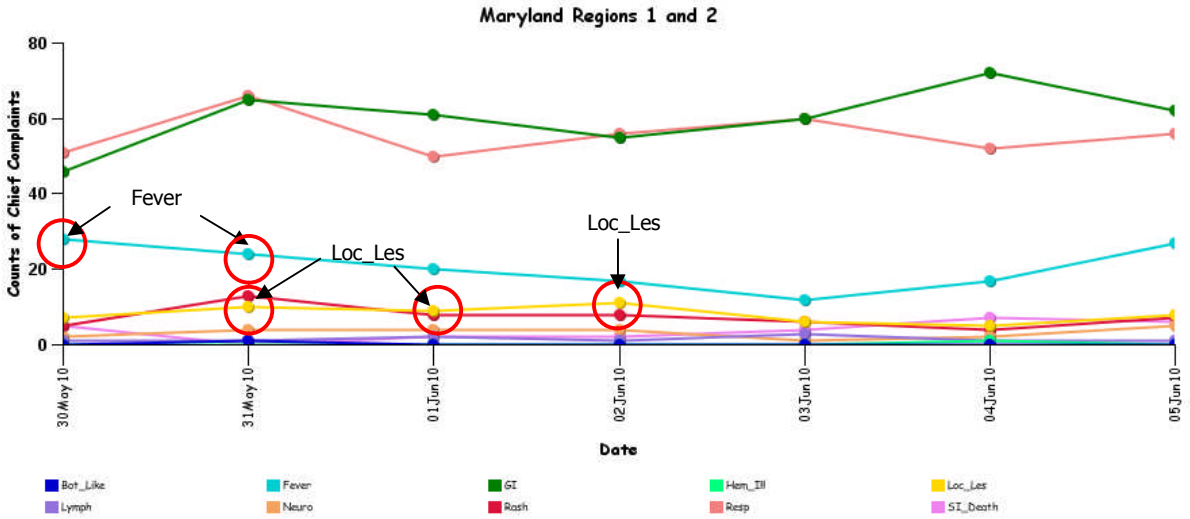
ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled. Red alerts are generated when observed count for a syndrome exceeds the 99% confidence interval. Note: ESSENCE – ANCR Spring 2006 (v 1.3) now uses syndrome categories consistent with CDC definitions.

Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

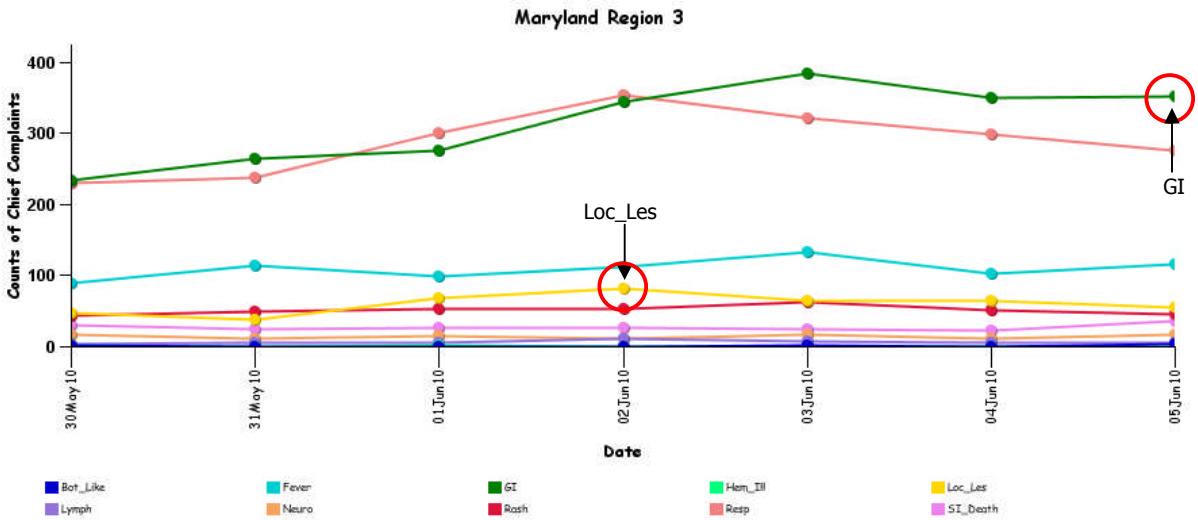


* Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE

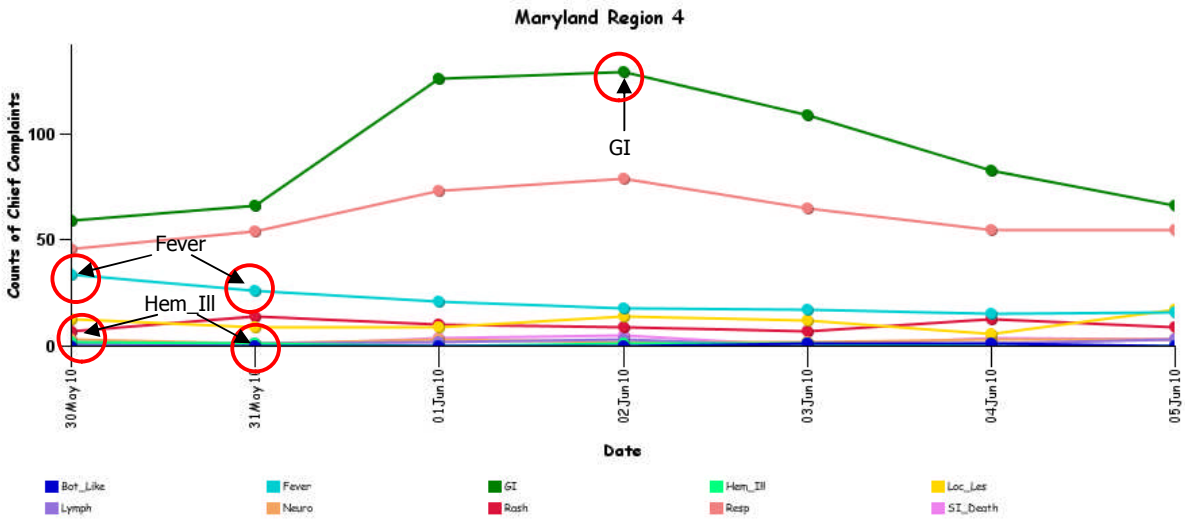
MARYLAND ESSENCE:



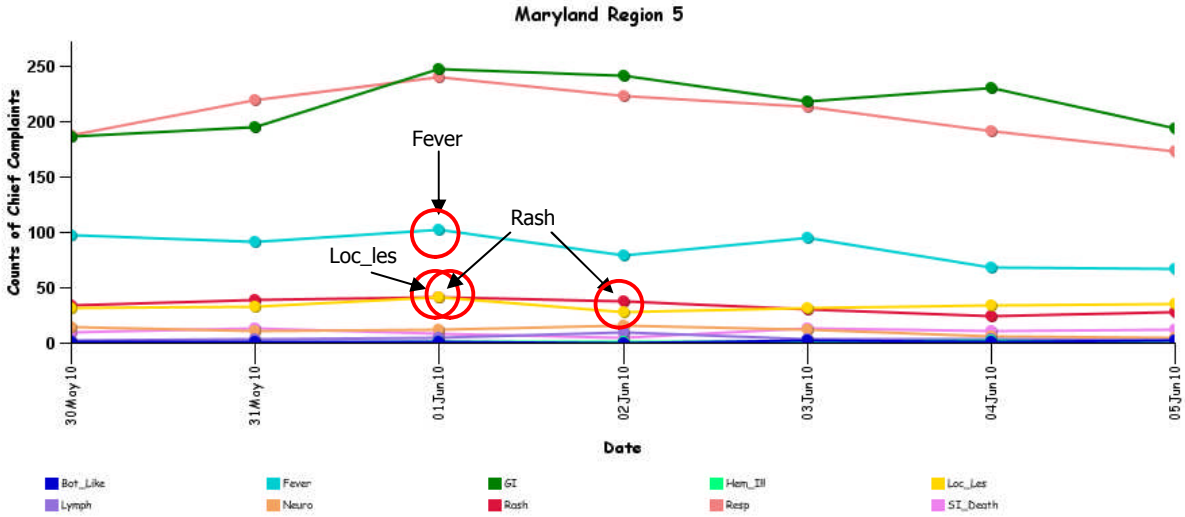
* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE



* Region 3 includes EDs in Anne Arundel, Baltimore city, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE

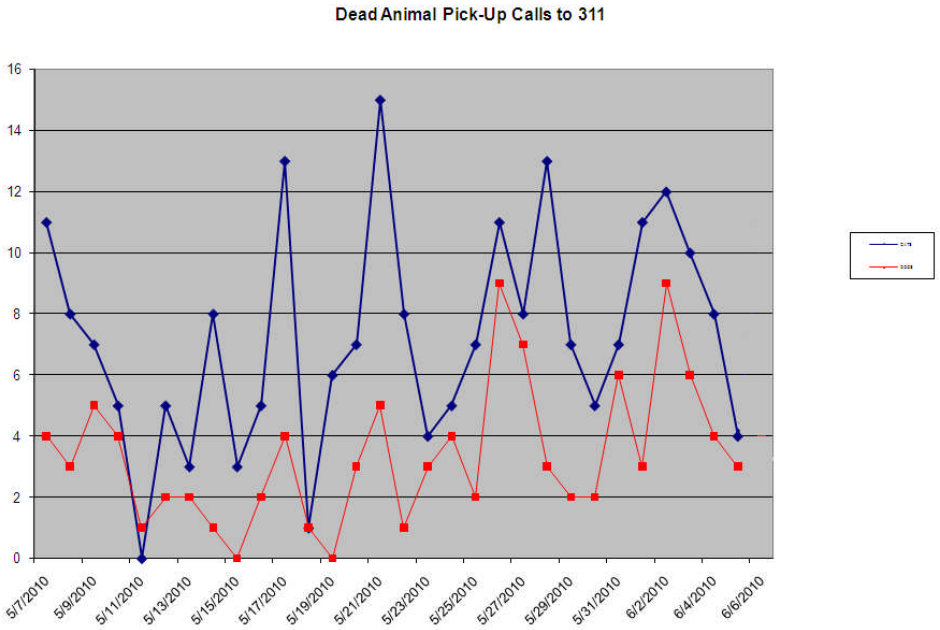


* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE



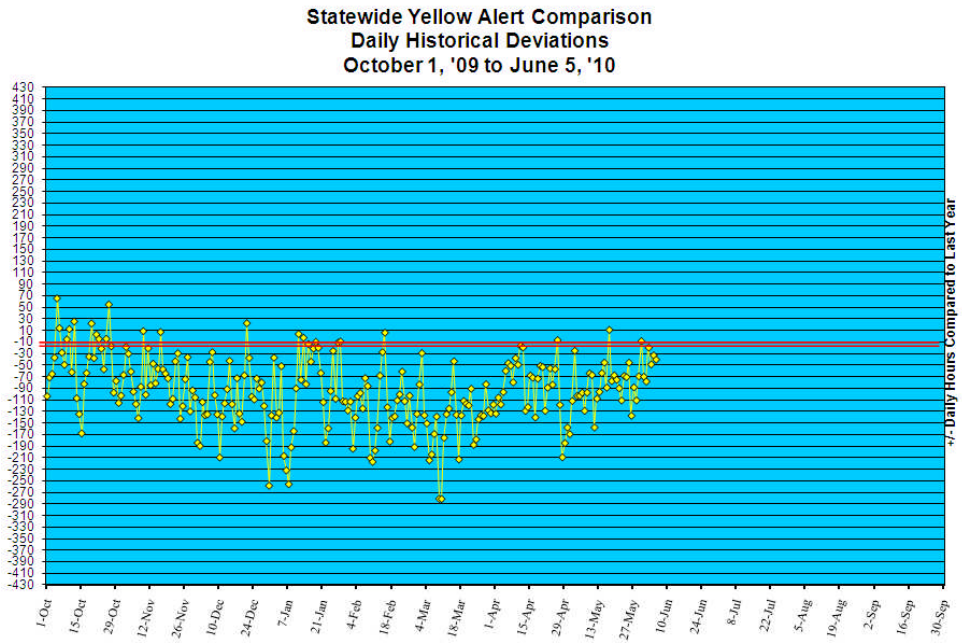
* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

BALTIMORE CITY SYNDROMIC SURVEILLANCE PROJECT: No suspicious patterns in the medic calls, ED Syndromic Surveillance and the animal carcass surveillance. Graphical representation is provided for animal carcass surveillance 311 data.



REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/09.



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to an emerging public health threat for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in May 2010 did not identify any cases of possible public health threats.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	**Aseptic**	**Meningococcal**
New cases (May 30 - June 05, 2010):	5	0
Prior week (May 23 - May 29, 2010):	13	0
Week#22, 2009 (May 31- June 06, 2009):	11	0

2 outbreaks were reported to DHMH during MMWR Week 22 (May 30- June 5, 2010)

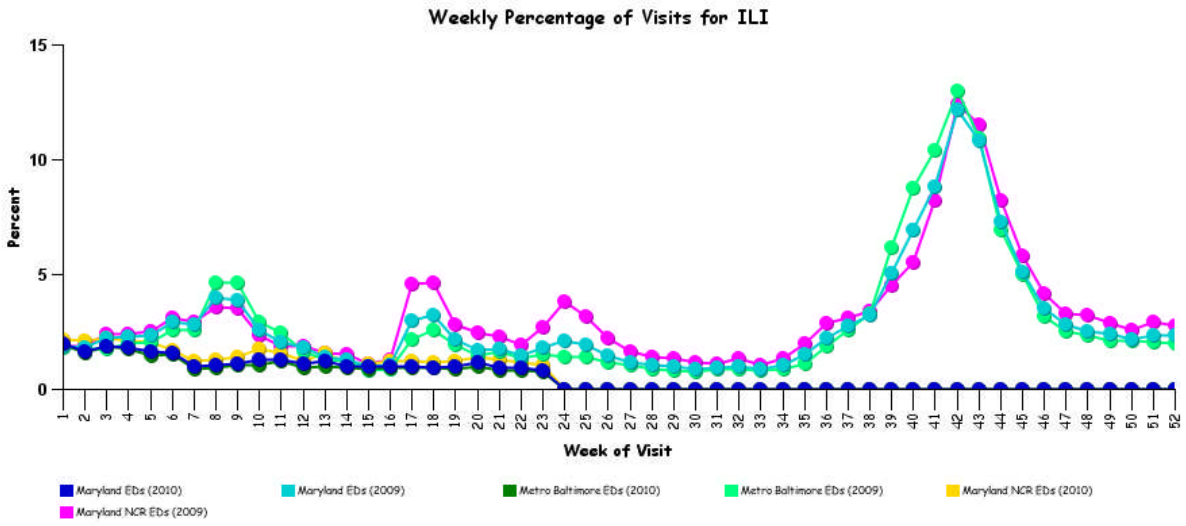
1 Foodborne outbreak
1 outbreak of GASTROENTERITIS/FOODBORNE associated with a Restaurant

1 other outbreak
1 outbreak of HEPATITIS B associated with a Dental Clinic

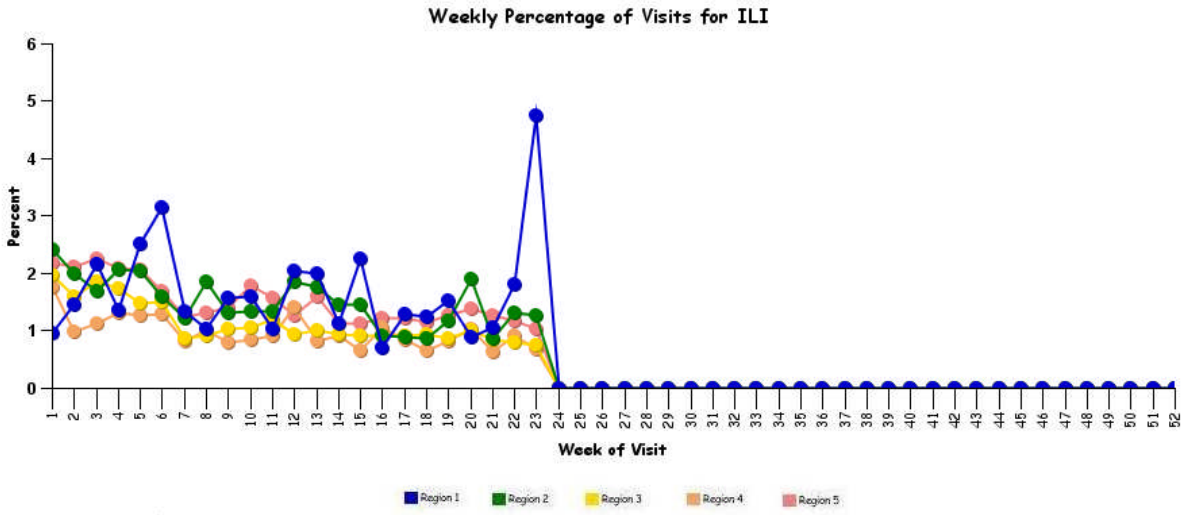
SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS

Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the
week.



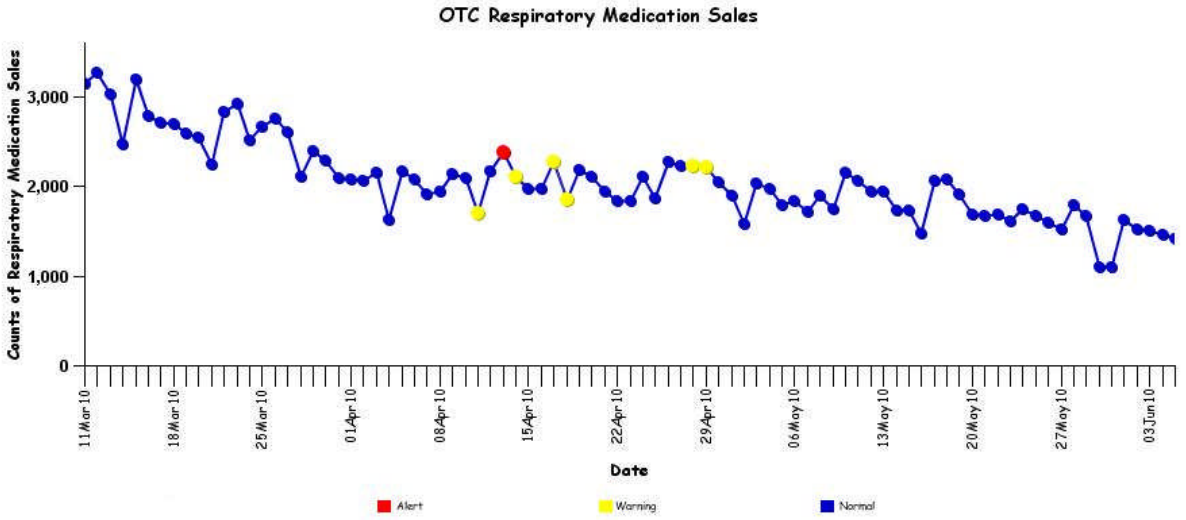
* Includes 2009 and 2010 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total



*Includes 2010 Maryland ED visits for ILI in Region 1, 2, 3, 4, and 5

OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.



PANDEMIC INFLUENZA UPDATE:

WHO Pandemic Influenza Phase: Phase 6: Characterized by community level outbreaks in at least one other country in a different WHO region in addition to the criteria defined in Phase 5. Designation of this phase will indicate that a global pandemic is under way. Definition of Phase 5 is characterized by human-to-human spread of the virus into at least two countries in one WHO region. While most countries will not be affected at this stage, the declaration of Phase 5 is a strong signal that a pandemic is imminent and that the time to finalize the organization, communication, and implementation of the planned mitigation measures is short.

US Pandemic Influenza Stage: Stage 0: New domestic animal outbreak in at-risk country

**More information regarding WHO Pandemic Influenza Phase and US Pandemic Influenza Stage can be found at: http://bioterrorism.dhmh.state.md.us/Documents/Plans/PandemicInfluenzaResponseAnnex(Version7.3).pdf

AVIAN INFLUENZA-RELATED REPORTS:

WHO update: As of May 06, 2010, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 498, of which 294 have been fatal. Thus, the case fatality rate for human H5N1 is about 59%.

AVIAN INFLUENZA, HUMAN, FATAL (CHINA): 4 Jun 2010, China's Ministry of Health reported a human case of highly pathogenic avian influenza [H5N1 virus infection] in Hubei Province. The victim was 22 years old, female, 4 months pregnant, and was an unemployed resident of Echeng District of Ezhou City in Hubei Province. She fell ill on 23 May 2010 and was hospitalized for treatment as her conditioned deteriorated. She died on Thu 3 Jun 2010 at 12:35 a.m. despite an intensive effort to save her. On the night of Wed 2 Jun 2010, the Hubei Province Center for Disease Control ran tests on samples from the patient's respiratory tract, which were positive for H5N1 highly pathogenic avian influenza virus infection. Virus isolation work is now underway. Epidemiological investigation by local health agencies found that the patient had contact with sick and dead poultry prior to falling ill. Work teams and specialist teams sent by China's Ministry of Agriculture will launch investigations and laboratory tests on poultry, in conjunction with Hubei veterinary agencies. No outbreaks of avian influenza in poultry have been found so far.

H1N1 INFLUENZA (Swine Flu):

INFLUENZA PANDEMIC, INDIAN VARIANTS (H1N1): 05 June 2010, worldwide more than 214 countries and overseas territories or communities have reported laboratory confirmed cases of pandemic influenza H1N1 2009, including more than 18 138 deaths. The WHO is actively monitoring the progress of the pandemic through frequent consultations with the WHO Regional Offices and Member States and through monitoring of multiple sources of information.

Situation update: Active but declining transmission of pandemic influenza virus continued to be detected in parts of the Caribbean and Southeast Asia. In the countries of temperate southern hemisphere there is no evidence yet to suggest that the winter influenza season has begun, however there has been limited localized pandemic influenza virus transmission in Chile. In the rest of the world, overall pandemic influenza virus transmission remains low. Seasonal influenza B viruses are currently the predominant type of influenza virus circulating globally, although at low levels. Of note, during the later part of May 2010, low but significant levels of predominantly seasonal influenza H3N2 viruses have been detected in several countries of East Africa.

In the tropical zone of the Americas, the most active areas of pandemic influenza virus transmission continue to be in parts of the Caribbean. In Cuba, pandemic influenza virus transmission has begun to decline after plateauing since mid-April 2010. In both Costa Rica and Columbia, there has been persistence of low level circulation of pandemic influenza virus since the beginning of 2010. Sporadic detections of pandemic and other seasonal influenza viruses, particularly type B, have been reported from several countries in the region during May 2010. Other respiratory viruses, for example RSV [respiratory syncytial virus], are known to be circulating to varying extents in different countries across the region.

In Asia, the most active areas of pandemic influenza virus transmission currently are in parts of South and Southeast Asia, particularly in Singapore and Malaysia, and to a lesser extent in Bangladesh. In Singapore, during the last week of May 2010, levels of ARI [acute respiratory infections] fell below the epidemic threshold and the proportion of respiratory samples testing positive for pandemic influenza fell from 39 percent to 29 percent. In Malaysia and Bangladesh, the numbers of new cases reported per week have been relative stable for the past 6 and 3 weeks, respectively, suggesting stable persistence of low level pandemic virus circulation during the past month in these areas. Very low levels of pandemic influenza virus also continue to circulate in parts of western and southern India, and in parts of Thailand. Sporadic detections of pandemic influenza virus have been reported in many countries across the region during the past month. In East Asia, overall influenza activity remains low, however, seasonal influenza B viruses continue to circulate at low and declining levels across the region.

In Sub-Saharan Africa, active but declining levels of pandemic influenza virus transmission continue to be detected in parts of West Africa, most notably in Ghana. During the most recent reporting week, 15 percent of all respiratory samples tested positive for pandemic influenza virus in Ghana. Sporadic detections of seasonal influenza B continue to be reported in central Africa. Of note,

low but significant numbers of seasonal H3N2 viruses were recently detected in Kenya (6 of 57 respiratory samples tested) and Tanzania (13 of 25 respiratory samples tested) during the most recent reporting week.

Overall, in the temperate regions of the northern and southern hemisphere, pandemic influenza viruses have been detected only sporadically during the past month. In the temperate southern hemisphere, Chile is the only country to recently report a small number of pandemic influenza cases in a few areas of the country suggesting that overall transmission is currently limited. Other respiratory viruses, most notably RSV, are known to be circulating in Chile, Paraguay, and Argentina. There have been no recent detections of pandemic influenza virus in South Africa. In New Zealand and Australia, overall levels of ILI [influenza-like illness] remain low; only sporadic detections of seasonal and pandemic influenza viruses have been recently reported in Australia.

INFLUENZA PANDEMIC, GUILLAIN-BARRE SYNDROME RISK (H1N1): 02 June 2010, Preliminary Results: Surveillance for Guillain-Barre Syndrome After Receipt of Influenza A (H1N1) 2009 Monovalent Vaccine --- United States, 2009—2010: Guillain-Barre syndrome (GBS) is an uncommon peripheral neuropathy causing paralysis and in severe cases respiratory failure and death. GBS often follows an antecedent gastrointestinal or upper respiratory illness but, in rare cases, can follow vaccination. In 1976, vaccination against a novel swine-origin influenza A (H1N1) virus was associated with a statistically significant increased risk for GBS in the 42 days after vaccination (approximately 10 excess cases per one million vaccinations), a consideration in halting the vaccination program in the context of limited influenza virus transmission. To monitor influenza A (H1N1) 2009 monovalent vaccine safety, several federal surveillance systems, including CDC's Emerging Infections Program (EIP), are being used. In October 2009, EIP began active surveillance to assess the risk for GBS after 2009 H1N1 vaccination. Preliminary results from an analysis in EIP comparing GBS patients hospitalized through 31 Mar 2010 who did and did not receive 2009 H1N1 vaccination showed an estimated age-adjusted rate ratio of 1.77 (GBS incidence of 1.92 per 100 000 person-years among vaccinated persons and 1.21 per 100 000 person-years among unvaccinated persons). If end-of-surveillance analysis confirms this finding, this would correspond to 0.8 excess cases of GBS per one million vaccinations, similar to that found in seasonal influenza vaccines. No other federal system to date has detected a statistically significant association between GBS and 2009 H1N1 vaccination. Surveillance and further analyses are ongoing. The 2009 H1N1 vaccine safety profile is similar to that for seasonal influenza vaccines, which have an excellent safety record. Vaccination remains the most effective method to prevent serious illness and death from 2009 H1N1 influenza infection; illness from the 2009 H1N1 influenza virus has been associated with a hospitalization rate of 222 per one million and a death rate of 9.7 per one million population.

INFLUENZA PANDEMIC, SINGAPORE, (H1N1): 30 May 2010, The epidemic season has hit Singapore as the number of flu cases surged through the roof, local newspaper The Straits Times reported Thursday [27 May 2010]. Although this has been a traditionally high season for influenza and colds collectively called acute respiratory infection, the number of people with the sniffles has been at epidemic, or near-epidemic levels for the past 6 weeks. A high of 18 420 people sought treatment for the flu at government health polyclinics last week [week of 17 may 2010], or 4000 more patients a week than the norm for this time of the year. Many of the flu cases involve the pandemic A (H1N1) strain, which created a health scare worldwide last year [2009], but eventually proved to be milder than originally thought. According to the Ministry of Health, 29 percent of patients [in Singapore] with flu-like symptoms last week [week of 17 May 2010] had this bug [influenza pandemic (H1N1) virus infection]. Also worrying is the higher number of patients turning up with pneumonia, a more severe form of upper respiratory tract infection. Pneumonia is the 3rd biggest killer in Singapore, after cancer and heart disease accounting for more than 2000 deaths in 2008.

Resources:

http://www.cdc.gov/h1n1flu/

http://www.dhmh.maryland.gov/swineflu/

NATIONAL DISEASE REPORTS

SALMONELLOSIS, SEROTYPE NEWPORT, SPROUTS, ALERT, RECALL (USA): 04 June 2010, CDC is collaborating with public health officials in many states and FDA to investigate a multistate outbreak of _Salmonella [enterica_] serotype Newport infections linked to the consumption of raw alfalfa sprouts. Investigators are using DNA analysis of bacteria obtained through diagnostic testing to identify cases of illness that may be part of this outbreak. As of 11:00 PM EDT on 2 Jun 2010, a total of 35 individuals infected with a matching strain of _S._ Newport have been reported from 11 states since 1 Mar 2010. The number of ill people identified in each state with this strain is as follows: AZ (2), CA (17), CO (1), ID (5), IL (1), MO (1), NM (1), NV (2), OR (2), PA (1), and WI (2). Among those for whom information is available about when symptoms started, illnesses began between 1 Mar 2010, 2010 and 16 May 2010. Case-patients range in age from less than 1 to 75 years old, and the median age is 36 years. 66 percent of patients are female. Among the 30 patients with available hospitalization information, 7 (23 percent) were hospitalized. No deaths have been reported. (Food Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

INTERNATIONAL DISEASE REPORTS

CHIKUNGUNYA (AFRICA: GABON): 04 June 2010, Cases of chikungunya and dengue are being registered in the provinces

of Upper Gabonese Ogooue and Ogooue lolo. According to the Director General of Health of Gabon, Mr. Khouilla. "Out of 616 samples analyzed by the International Centre for Medical Research (CIRMF), 303 cases were positive for chikungunya virus and 15 cases of co-infection with both diseases [viruses]. So far, no deaths have been reported since the declaration of these epidemics in April [2010]." To provide a response to these 2 outbreaks, health experts have been dispatched to the country to strengthen the management of patients through an allocation of medicines and emergency training for health care staff working in those areas where the epidemics exist. Dr. Khouilla has also said that awareness campaigns are carried out actively on the risks people face by these epidemics and how to fix them. He also recommended spraying houses with insecticide in order to fight against mosquitoes, the main vectors of these 2 diseases [viruses]. Chikungunya is manifested by fever, severe joint pain and rashes. In 2008, an outbreak of chikungunya was reported in the estuary, particularly in Libreville and in the provinces of Woleu-Ntem, Ogooue-Maritime. According to figures from the Ministry of Health, more than 16 000 cases were registered during the epidemic which had appeared for the 1st time in the country. (Emerging Infectious Diseases are listed in Category C on the CDC list of Critical Biological Agents) *Non-suspect case

ANTHRAX, HUMAN, BOVINE, FATAL SUSPECTED (KENYA): 31 May 2010, Following a suspected anthrax outbreak, 2 people have been reported dead in Murang'a District, Central Province. The 2 persons from Gikandu village died after consuming beef from sick animals. According to a witness a villager slaughtered his sick cow on [8 May 2010] and invited his neighbours for a feast. Later, on [15 May 2010], another villager also slaughtered a cow, which had similar symptoms. But [a man] who was among those who had consumed the beef died on 23 May 2010. [The 2nd man] died yesterday [27 May 2010], raising fears that the animals might have had anthrax. The 1st victim died at the Murang'a district hospital where medical tests showed signs of anthrax. His son is in serious condition. Ironically, the local public health officer had certified the beef from the 2 animals fit for human consumption. The provincial administration urged residents showing symptoms of the disease to quickly seek medical attention. As a result, residents have been cautioned against eating uninspected meat or meat from animals that appear to be sick. (Anthrax is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

ANTHRAX, HUMAN, BOVINE (PHILIPPINES): 31 May 2010, Health officials confirmed on Saturday [29 May 2010], that 41 people have been infected with anthrax, a deadly bacterial disease notoriously used in biological warfare, after they ate the meat from 2 carabaos that had died from sickness in Villaviciosa town. Dr Myrna Cabotaje, director of the Center for Health Development (CHD) in Cordillera, said the victims were lucky that none of them died. Cabotaje said the situation has been put under control after antibiotics were immediately distributed to the residents to mitigate the effects of the anthrax disease. Based on the report from the National Epidemiology and Surveillance Center, which conducted a field-based investigation in the town after the reported anthrax outbreak, there were 41 confirmed cases. Most of the patients were men but all of them had skin lesions. Cabotaje explained that a suspected anthrax case would experience pruritic (itchy) skin lesions from which lesions progressed from papule (raised portion of skin), to vesicle (skin lesion with fluid), then to a black eschar and may be accompanied by edema (swelling) or abdominal pain, vomiting, dyspnea (difficulty in breathing), and fever. The Research Institute of Tropical Medicine (RITM) conducted the laboratory tests that confirmed 2 samples from swabbed lesions were positive for _Bacillus anthracis_ or anthrax. Cabotaje said the common denominator among the patients was that they all ate meat from butchered carabaos that died of unknown causes. Appropriate samples from the hides of the dead carabaos were sent to the Bureau of Animal Industry (BAI) for analysis and results of the tests are still being awaited for the proper guidance of concerned agencies. (Anthrax is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: http://preparedness.dhmh.maryland.gov/

Maryland's Resident Influenza Tracking System: www.tinyurl.com/flu-enroll

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NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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